MONTHY COMMUNICABLE DISEASE REPORT

July 2004

CONTENTS

Section I: Top Ten Reportable Diseases in Missouri as of August 11, 2004*

The following data were reported through the MISSOURI HEALTH SURVEILLANCE INFORMATION SYSTEM (MOHSIS) and the TUBERCULOSIS INFORMATION MANAGEMENT SYSTEM (TIMS). For diseases reported through MOHSIS, counts include confirmed and probable cases only, except for acute Hepatitis C that includes only confirmed cases. For tuberculosis reported through TIMS, counts include only verified cases of TB disease.

As of Report Week #30 (week ending July 31, 2004), influenza and chronic Hepatitis C were the two most common reportable diseases in Missouri; with well over one thousand reported cases each (Table 1). Campylobacteriosis, salmonellosis, and giardiasis were the next most common diseases; with between two hundred and four hundred reported cases each.

Of the ten diseases with the highest number of reported cases through Report Week #30, the year-to-date case count of six significantly exceeded the 5-year median value (Table 1). These six diseases were influenza, acute and chronic Hepatitis B, acute and chronic Hepatitis C, and pertussis. The 2004 year-to-date case counts for pertussis and acute Hepatitis C were substantially higher (i.e., >400%) than the 5-year median value. [NOTE: A portion of this increase may reflect improvements in, or changes to, reporting.] Conversely, the year-to-date case count of two diseases (i.e., giardiasis, and shigellosis) was significantly below the 5-year median (Table 1).

**** Data analysis in this section does not include sexually transmitted diseases. Additionally, all 2004 communicable disease data presented in this section are provisional.***

Section I: Top Ten Reportable Diseases in Missouri as of August 11, 2004-Continued

Table 1. Top Ten (by Count) Reportable Diseases and/or Conditions in Missouri **– excluding sexually transmitted diseases –** as of August 11, 2004 (through Report Week #30).

Top Ten Diseases/Conditions	Year-to-Date 2004	5-Year Median (1999-2003)	Percent of 5-Year Median	Crude Rate per 100,000[a]
Influenza	4,300	2,418	178%	76.85
Hepatitis C, Chronic Infection[b]	1,663	692	240%	29.72
Campylobacteriosis	376	342	110%	6.72
Salmonellosis	345	397	87%	6.17
Giardiasis	276	355	78%	4.93
Pertussis	188	44	427%	3.36
Hepatitis B, Acute Infection	141	83	170%	2.52
Hepatitis B, Chronic Infection[c]	132	51	259%	2.36
Hepatitis C, Acute Infection	115	24	479%	2.06
Shigellosis	94	207	45%	1.68

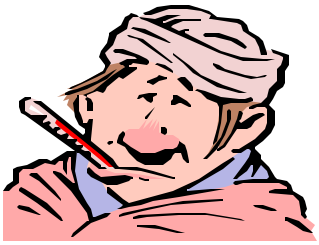
a) Year to date crude rates calculated using 2000 U.S. Census data.

b) Prior to 2002, Hepatitis C, chronic infection was not reportable. As a result, the interpretive utility of the 5-year median value for chronic Hepatitis C is limited.

c) Hepatitis B, chronic infection did not become reportable until 2003. As a result, year-to-date data for 2003 was substituted for the 5-year median value.

Section II: In the Spotlight: Influenza (laboratory-confirmed)

The 1918 Pandemic. Influenza is a vaccine-preventable disease that affects millions of people worldwide every year. However, in 1918 the world experienced an influenza pandemic of unprecedented proportions. Millions of people were affected. The 1918 pandemic may be the most devastating epidemic in recorded history. More people died of influenza in this year than in the four years of the Bubonic Plague from 1347 to 1351.[1]



One unique aspect of the 1918 Pandemic was that the 20-40 year age group suffered the highest mortality. This age pattern was unusual, as influenza mortality is typically higher among young children and the elderly.[1] (1918's Pandemic may have been due to a genetic shift in the influenza virus.) Many experts within the Centers for Disease Control and Prevention (CDC), the World Health Organization, and the Council for State and Territorial Epidemiologists indicate that it is no longer a matter of if, but when, another genetic shift will occur like the one in 1918.

Influenza: What it is, its symptoms and protection against it. Influenza, more commonly known as 'the flu', is a respiratory illness caused by viruses. Illness varies from mild to severe, with potentially life-threatening complications. According to the Centers for Disease Control and Prevention (CDC), each year an estimated 10% to 20% of the U.S. populations gets influenza, an average of 114,000 people are hospitalized for flu-related complications, and 36,000 Americans die from complications of the flu.[2]

Influenza is contagious and is spread person to person, most often through droplets from coughs and sneezes. Symptoms include fever, muscle and head aches, extreme fatigue, sore throat, and runny or stuffy nose. Nausea, vomiting, and diarrhea occur, but usually only in only children. Children and the elderly are at greatest risk from influenza. If you have the flu; get lots of rest, drink plenty of fluids, and avoid alcohol and tobacco. Over-the-counter medications to ease the symptoms of the flu, while anti-viral medications may be used to treat and prevent the flu.

1. Stanford University, "The Influenza Pandemic of 1918," http://www.stanford.edu/group/virus/uda/index.html
2. Department of Health and Human Services, Centers for Disease Control and Prevention, Influenza Branch, http://www.cdc.gov/flu/keyfacts.htm

Section II: In the Spotlight: Influenza (laboratory-confirmed) -Continued

THE ABSOLUTE BEST DEFENSE AGAINST GETTING INFLUENZA IS TO GET VACCINATED EVERY FALL!

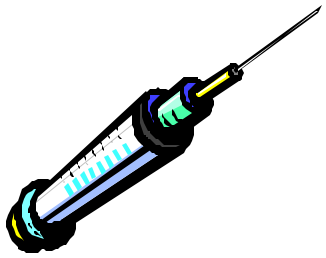
Individuals receiving a vaccination when it is made available could prevent much of the illness and death that occur. The CDC recommends the following individuals should receive a vaccination before the beginning of each influenza season.

- ✓ Persons at increased risk for influenza-related complications (e.g., those aged ≥65 years, children aged 6-23 months, pregnant women, and persons of any age with certain chronic medical conditions, such as diabetes).
- ✓ Persons aged 50-64 years, as this group has an elevated prevalence of certain chronic medical conditions.
- ✓ Persons who live with, or care for, persons at high risk (e.g., health-care workers and household contacts who have frequent contact with persons at high risk and who can transmit influenza to those persons at high risk). [3]

Late September to early October is the recommended time to receive these vaccines.

Additional ways to help prevent the spread of influenza:

- ✓ Cover your mouth and nose when you sneeze
- ✓ Wash your hands frequently
- ✓ Stay home when you are sick
- ✓ Avoid close contact with those who are sick
- ✓ Avoid touching your eyes, nose and mouth.

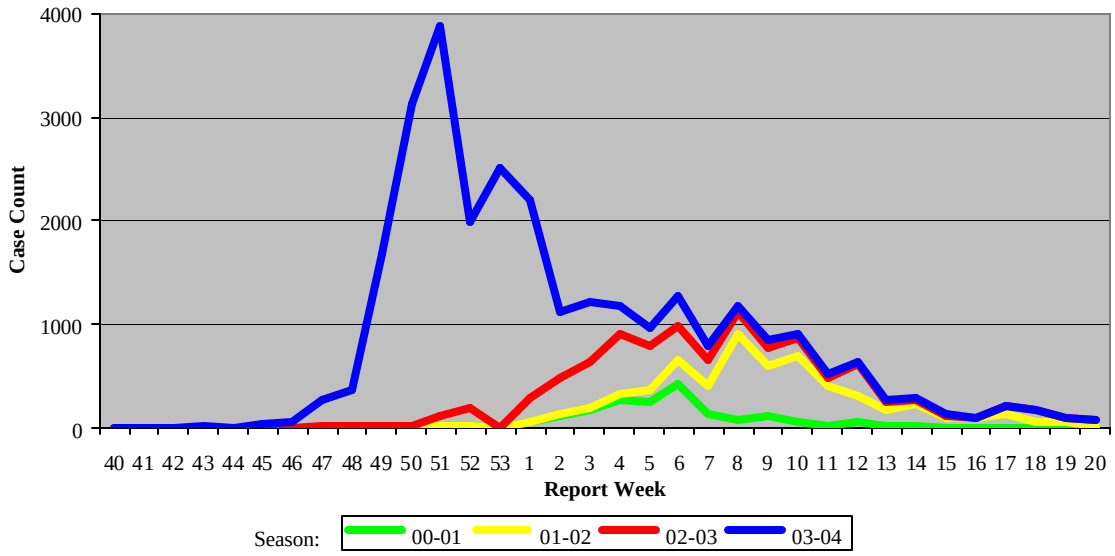


3. Department of Health and Human Services, Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5306a1.htm

Section II: In the Spotlight: Influenza (laboratory-confirmed) -Continued

Influenza in Missouri. More than four times the number of laboratory-confirmed cases of influenza were reported during the 2003-04 influenza season (17,853 reported cases) than during 2002-03 season (4,318 reported cases) (Figure 1).[4] Additionally, sizeable numbers of reported cases occurred several weeks earlier than in previous seasons. In 2003-04; specimen collection, growing of cultures, and rapid-testing to confirm influenza increased. Coupled with concerns about pediatric deaths, these factors account for some of the increase in the reported number of cases. However, the 2003-04's increase in reported influenza cases was not due solely to increased testing; as comparison to historical data indicate Missouri had an unusually large number of influenza cases during the 2003-04 season.

Figure 1. Number of Reported Cases of Laboratory-Confirmed Influenza, by Influenza Season and Report week.



4. *2003 Annual Report: Bioterrorism, Communicable Disease, and Environmental Surveillance. Office of Surveillance Disivion of Environmental Health and Communicable Disease Prevention, Missouri Department of Health and Senior Services. Jefferson City, Mo.* *http://www.dhss.mo.gov/CommunicableDisease/03Annual.pdf*

Section II: In the Spotlight: Influenza (laboratory-confirmed) -Continued

Individuals aged </= 19 years and >/= 50 years had the highest crude rates of reported laboratory-confirmed influenza (Table 2).

Table 2. 2003-04 Case Counts and Crude Rates of Reported Cases of Laboratory-Confirmed Influenza and 1998-03 Mean Crude Rates; by Age Group.[1]

	Case Count: 2003-04 Season	Crude Rate: 2003-04 Season[2]	Mean Crude Rate: 2001-02 & 2002-03 Seasons[2]		Mean Crude Rate: 1998-99, 1999-00, 2000-01 Seasons[2]
Age Group				*Age Group*	
<13	10,831	1065.6	262.7	*<10*	82.7
13-19	1,480	256.16	84.3	*10-19*	29.7
20-29	1,188	162.34	28.2	*20-29*	12.4
30-39	735	89.67	19.9	*30-39*	7.6
40-49	531	63.22	15.5	*40-49*	5.9
50+	2,290	365.86	66.4	*50+*	18.7
Unknown	779	79.19	14.7	*Unknown*	9.3

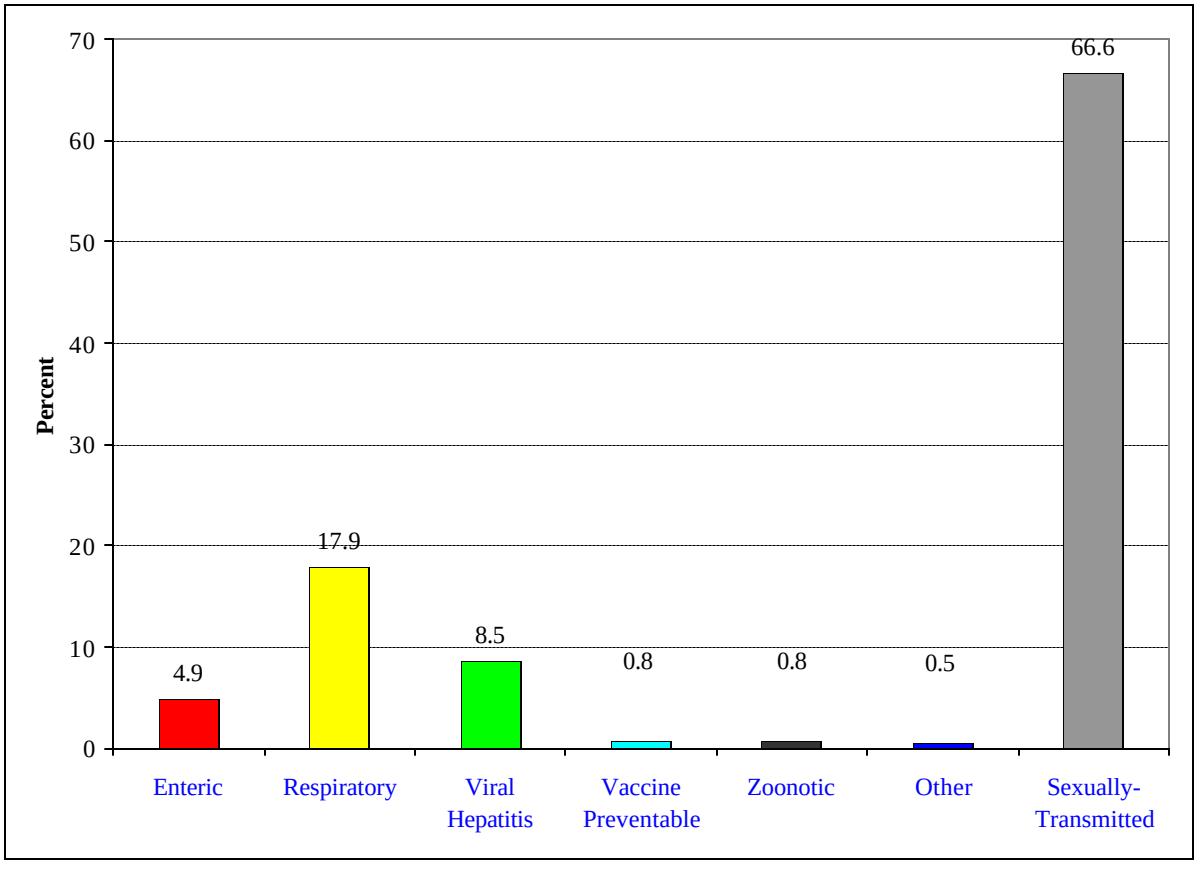
1 Age data collected differently during the 1998-2001 and 2001-2004 influenza seasons.
2 Crude rates per 100,000 population calculated using 2000 U.S. Census data.

Section III: Distribution of Reported Cases, by Disease Category*

As of August 11, 2004; excluding the 'Animal Bite' classification, sexually-transmitted diseases – **excluding HIV –** comprised the largest percentage of cases (66.6%) through Report Week #30 (week ending July 31, 2004) (Figure 2).* Respiratory diseases comprised the next largest percentage of cases (17.9%), followed by viral hepatitis (8.5%) and enteric diseases (4.9%). The remaining disease categories (i.e., vaccine preventable, zoonotic, and other disease) comprised less than 1% each of the total number of reported cases.

**** Data for sexually transmitted diseases (STD) are through June 30, 2004. Additionally, all 2004 communicable disease data presented in this section are provisional.***

Figure 2. Percentage of Reportable Diseases and/or Conditions in Missouri **– excluding HIV –** reported as of August 11, 2004 (through Report Week #30) – by Disease Category



Section IV: Links to other Communicable Disease Surveillance Unit Reports*

Other Communicable Disease Surveillance Unit Reports

Report Title	Report Interval	Report Web Location
Summary of Notifiable Diseases in Missouri	annual	http://www.dhss.mo.gov/CommunicableDisease/Reports.html
Previous Communicable Disease Newsletters	monthly	http://www.dhss.mo.gov/CommunicableDisease/Reports.html
Rabies Surveillance	monthly	http://www.dhss.mo.gov/Rabies/index.html
HIV/STD Statistical Reports	various	http://www.dhss.mo.gov/HIV_STD_AIDS/Data.html
Influenza Surveillance	weekly	http://www.dhss.mo.gov/Influenza/Reports.html

* To obtain additional information please contact the Office of Surveillance at (573) 752-9071.

Other Communicable Disease Resources

Resource Title	Resource Web Location
List of Diseases and Conditions Reportable in Missouri	http://www.dhss.mo.gov/CommunicableDisease/reportablediseaselist2.pdf
MDHSS Disease Case Report (CD-1)	http://www.dhss.mo.gov/CDManual/CDappends.pdf
Communicable Disease Investigation Reference Manual	http://www.dhss.mo.gov/CDManual/CDManual.htm
Missouri Information for Community Assessment	http://www.dhss.mo.gov/MICA/nojava.html

Section III: Distribution of Reported Cases, by Disease Category:

Enteric

NUMBER OF REPORTED CASES AS OF AUGUST 11, 2004	
ENTERIC DISEASES	
Acute Gastrointestinal Illness	5
Botulism, Infant	1
Campylobacteriosis	376
Cryptosporidiosis	36
Cyclosporiasis	2
Escherichia Coli O157 H7	40
Escherichia Coli Shiga Toxin	8
Escherichia Coli Shiga Toxin (not SG)	6
Giardiasis	276
Hemolytic Uremic Sydrome	9
Salmonella	345
Shigellosis	94
Typhoid	2
Yersiniosis	10
TOTAL	1210

Section III: Distribution of Reported Cases, by Disease Category:

Respiratory

NUMBER OF REPORTED CASES AS OF AUGUST 11, 2004	
RESPIRATORY DISEASES	
Adult Respiratory Distress Syndrome	1
Blastomycosis	1
Coccidioidomycosis	3
Influenza	4300
Legionellosis	12
Tuberculosis	78
TOTAL	4395

Section III: Distribution of Reported Cases, by Disease Category:

Viral Hepatitis

NUMBER OF REPORTED CASES AS OF AUGUST 11, 2004	
VIRAL HEPATITIS	
Hepatitis A	32
Acute Hepatitis B	141
Chronic Hepatitis B	132
Perinatal Hepatitis B	1
Acute Hepatitis C	115
Chronic Hepatitis C	1663
Hepatitis , other or unspecified	1
TOTAL	2085

Section III: Distribution of Reported Cases, by Disease Category:

Vaccine Preventable

NUMBER OF REPORTED CASES AS OF AUGUST 11, 2004	
VACCINE PREVENTABLE DISEASES	
Measles	1
Mumps	2
Pertussis	188
Rubella	1
TOTAL	192

Section III: Distribution of Reported Cases, by Disease Category:

Zoonotic

NUMBER OF REPORTED CASES AS OF AUGUST 11, 2004	
ZOONOTIC DISEASES	
Brucellosis	2
Ehrlichiosis HGE	10
Ehrlichiosis HME	23
Lyme	44
Malaria	12
Psittacosis	1
Q Fever	2
Rabies, animal	24
Rocky Mountain Spotted Fever	53
Tularemia	11
West Nile Virus Encephalitis/Meningitis	3
TOTAL	185

Section III: Distribution of Reported Cases, by Disease Category:

Other

NUMBER OF REPORTED CASES AS OF AUGUST 11, 2004	
OTHER DISEASES	
Aseptic and Bacterial Meningitis, other	15
Meningitis, other (fungal)	6
Meningicoccal Meningitis	9
Haemophilus Influenzae	17
Listeriosis	2
Streptococcal Disease, invasive Group A	42
Streptococcal Pneumonia	23
other	2
TOTAL	116

Section III: Distribution of Reported Cases, by Disease Category:

Sexually-Transmitted

NUMBER OF REPORTED CASES AS OF JUNE 30, 2004	
SEXUALLY-TRANSMITTED DISEASES	
Chlamydia	11440
Gonorrhea	4731
Syphilis - Early	54
Syphilis - Latent and Duration Unknown	82
Syphilis - Congenital	1
TOTAL	16308